

DISTRICT-WISE COMPARATIVE ECONOMIC ANALYSIS OF MARKETING OF FENUGREEK

DEEPA KUMARI KUMAWAT & R. C. KUMAWAT

Department of Agricultural Economics, S. K. N. College of Agriculture, Sri Karan Narendra
Agriculture University, Jobner, Jaipur, Rajasthan, India

ABSTRACT

Fenugreek is one of the main seed spices. The marketing system, costs, margins and price-spread are key parameters to devise appropriate product-specific marketing strategy. It was intended to investigate and compare the marketing costs incurred and margins earned by different agencies involved in the marketing of fenugreek in two districts (Jaipur and Sikar). Shri Madhopur mandi (Sikar) and Chomu mandi (Jaipur) have been selected to compute and compare total cost incurred on marketing, absolute margin earned by middlemen, producer's share and price-spread in both districts. Total cost in the sale of fenugreek crop has been ₹ 385.74 and ₹ 356.14 per quintal, respectively at village and mandi in Jaipur district and ₹ 422.76 and ₹ 392.36 per quintal in Sikar district. Marketing costs were higher by ₹ 29.60 per quintal in the sale at the village as compared to that in Mandi in Jaipur and ₹ 30.40 per quintal in Sikar district. Agency-wise breakup of the total marketing costs in a sale of fenugreek crop revealed that wholesalers incurred the major share in total marketing costs which accounted 62.20 per cent and 67.37 per cent, respectively in village sale and mandi sale in Jaipur district and these ratios were 55.79 per cent and 60.11 per cent in Sikar district. Producer's share in the consumer's rupee has been 58.57 per cent in village sale and 65.71 per cent in mandi sale in Jaipur district and these ratios were 58.82 per cent and 66.18 per cent in Sikar district. Farmers selling fenugreek crop in mandi got 7.14 per cent higher share than the village sale in Jaipur and 7.36 per cent in Sikar district. Margin earned by the middlemen has been higher by 6.30 per cent in a sale of fenugreek in the village sale than the mandi in Jaipur and 6.56 per cent higher in village sale than mandi in Sikar district.

KEYWORDS: Comparative, Marketing & Fenugreek

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INTRODUCTION

Coriander, cumin, fennel, fenugreek, dill, ajwain, celery, anise nigella, and caraway are major seed spices of India and Rajasthan is the major seed spices producing the state of coriander, cumin, fennel, fenugreek and ajwain. Fenugreek is one of the main seed spices and used as a demulcent, diuretic, tonic, carminative, astringent, emollient and aphrodisiac. In 2012-13, the total area under fenugreek in Rajasthan state was 82.36 thousand hectares which accounted for 88.45 per cent of the total area and produced 87.38 thousand tonnes of fenugreek, which accounted for 77.43 per cent of the total production under fenugreek in the country. It was exported to the countries like Dubai, Singapore, Malaysia, Europe, USA and Japan (www.indianspices.com).

The farmers need better marketing facilities for marketing of high-value risky crops, which is generally reflected through a higher share in consumer's rupee. It is not only essential to obtain higher yields but it is equally essential to market the surplus produce at right time and at right place/market also. It is of immense importance to

examine the marketing system, costs, margins and price-spread to devise an appropriate product-specific marketing strategy (www.icar.org.in).

The per quintal total marketing cost of turmeric was calculated as ₹ 44.29. The share of commission agent was 40.08 per cent in consumers rupees followed by transportation charges (23.75 per cent) and the value of gunny bags (19.69 per cent). Octroi shared the minimum cost (1.42 per cent) (Lohar, 1991). Marketing costs were higher (₹ 2.05 per quintal) in a sale of fennel seed at village level compared to sale at Mandi. Transportation cost and cost of gunny bags were the major cost items borne by the producer-farmers in the sale of fennel seed both at village and mandi (Choudhary, 2000). It was concluded that out of many marketing channels, the second channel, i.e. (producer-wholesaler-domestic consumer) was most efficient that had marketing margin and producer share in consumer price equal to 12 per cent and 88 per cent, respectively (Ghorbani, 2008).

The cost of cultivation (6a, Kumawat *et. al*, 2017) and resource use efficiency (7b, Kumawat *et. al*, 2017) of fenugreek crop in the state of Rajasthan have been reported. Similarly, during the study of economic analysis of marketing behavior of fenugreek in Rajasthan, it was observed that marketing costs were higher by ₹ 30.55 per quintal in a sale at the village as compared to that in Mandi because of involvement of more number of middlemen in village sale of the state. Margin earned by the middlemen has been lesser by 6.36 per cent in sale of fenugreek in the mandi than the village sale of the state (8c, Kumawat *et. al*, 2017).

Keeping the above the whole story in the observations, the present study is intended to investigate and compare the marketing costs incurred and margins earned by different agencies involved in the marketing of fenugreek in two different districts (Jaipur and Sikar) of Rajasthan state.

METHODOLOGY

Herewith, the whole methodology was adopted as described by Kumawat *et. al* (8c, 2017), which is summarized as below cited.

Data Collection

In last three years, the highest arrival of fenugreek is in Shri Madhopur mandi (Sikar) and Chomu mandi (Jaipur) has been observed; so both mandies have been purposively preferred for the present study. List of farmers was prepared from the catchment area of the above-regulated markets i.e. Shri Madhopur mandi and Chomu mandi. On the basis of size of land holdings of farmers, these were divided into following five size groups viz. marginal (less than 1 hectare); small (1–2 hectares); semi-medium (2–4 hectares); medium (4–10 hectares); large (10 hectares and above). On the basis of systematic sampling, a sample of 150 farmers was selected from total numbers of farmers (615). The marketing behavior of farmers in respect of the place of sale, time of sale, agency adopted in the sale of the surplus produce was analyzed by using the tabular analysis. The data pertaining to marketing costs and margins were analyzed.

CALCULATION

Total Cost of Marketing

The total cost incurred on the marketing of particular crop by the farmers and the intermediaries involved in the process of marketing was by summing cost paid by the producer-farmer from the time the produce leaves the farm till it is sold and cost incurred by the i^{th} middleman in the process of buying and selling.

Marketing Margin

The absolute margin earned by a middleman was calculated as: $A.M. = S_p - (P_p + C_m)$; where; S_p = sale price of fenugreek per unit of output, P_p = purchase price of fenugreek per unit of output, C_m = per unit cost incurred in marketing the middleman and percent margin was calculated as $\text{Percent margin} = \frac{S_p - (P_p + C_m)}{S_p} \times 100$

Producer's Share

It represents the percentage share of a producer in the price paid by the consumer. $P_s = \frac{P_f}{P_c} \times 100$; Where; P_s = producer's share in consumer's rupee, P_f = price of the produce received by the farmer, P_c = price of the produce paid by the ultimate consumer.

Price-Spread

Price-spread refers to the difference between the price paid by the ultimate consumer and the price received by the producer for an equivalent quantity of the farm produce. The breakup of costs, margins, and share of the producer farmer and different market middleman were worked out in the consumer's price in simple percentage terms.

RESULTS AND DISCUSSIONS

The decision of a farmer in regard to the sale of his produce determines the flow of the product in the marketing channel and the decision of sale itself is influenced by a number of factors like proximity to market, availability of transportation facilities, availability of storage facilities, his economic soundness, etc. In this section, an attempt has been made to analyse the marketing behaviour of farmers in respect of sale, cost incurred and margin earned by the different agencies involved in marketing of fenugreek in regulated markets (Krishi Upaj Samiti, Chomu, Jaipur and Krishi Upaj Mandi Samiti, Sri Madhopur, Sikar) in the state of Rajasthan. District-wise study results are presented and discussed as under:

Marketing System of Fenugreek

An efficient marketing system is one of the pre-requisites for raising the income of farmers. The available marketing facilities and different marketing channels bring variation in the net price received by the producer-farmers for the produce disposed of by them. The farmers' behavior with respect to a sale of their surplus produce and the pattern of flow of surplus produce in the marketing channels are influenced by the number of factors such as proximity to market, the price of the product in the market, availability of transport facilities, available storage facilities, the financial position of the farmers etc. The marketing behavior of the selected fenugreek growing farmers with respect to the place, time and agency adopted by them in a sale of fenugreek is presented under following sub-sections: (i) place-wise sale pattern of fenugreek; (ii) time-wise sale pattern of fenugreek; (iii) agency-wise sale pattern of fenugreek.

Place-Wise Sale Pattern in Jaipur

The farmers sold the surplus of fenugreek in their own village as well as in nearby Krishi Upaj Mandi Samiti, Chomu (Jaipur). 65.12 per cent produce of fenugreek was sold by the selected farmers in the mandi and 34.88 per cent in their village markets. Among the size groups, there existed large variation. All the marginal and small farmers sold the

crop production in their own villages. As against this, all the large farmers sold their fenugreek produce in the nearby regulated market. The semi-medium and medium farmers sold their fenugreek at both the places. The semi-medium farmers sold 53.88 per cent produce in the village and 46.12 per cent in a regulated market. The medium sized farmers sold 81.18 per cent produce in the regulated market and rest 18.82 per cent in the village itself (Table 1). Thus, from the above results, it could be concluded that the sale of fenugreek in the regulated market increased with the increase in the size of farm holding because of the low quantity of produce available with farmers of small land holdings.

Table 1: Place-Wise Disposal Pattern of Fenugreek Seed by the Sample Farmers in Jaipur and Sikar District (Quantity in Quintals)

Size Groups	No of Farmers		Village Sale		Mandi Sale		Total	
	Jaipur	Sikar	Jaipur	Sikar	Jaipur	Sikar	Jaipur	Sikar
Marginal (< 1 ha.)	14	9	75.50*	51.00*	-	-	75.50*	51.00*
			5.39**	5.67**	-	-	5.39**	5.67**
			(100.00)	(100.00)			(100.00)	(100.00)
Small (1-2 ha.)	22	13	273.00*	113.00*	-	-	273.00*	113.00*
			12.40**	8.69**	-	-	12.40**	8.69**
			(100.00)	(100.00)	-	-	(100.00)	(100.00)
Semi-medium (2-4 ha.)	21	20	222.00*	217.00*	190.00*	184.00*	412.00*	401.00*
			10.57**	10.85**	9.05**	9.20**	19.62**	20.05**
			(53.88)	(54.11)	(46.12)	(45.89)	(100.00)	(100.00)
Medium (4-10 ha.)	20	14	89.00*	100.00*	384.00*	367.00*	473.0*	467.00*
			4.45**	7.14**	19.20**	26.21**	23.65**	33.35**
			(18.82)	(21.41)	(81.18)	(78.59)	(100.00)	(100.00)
Large (10 ha. & above)	10	7	-	-	657.00*	391.00*	657.00*	391.00*
			-	-	65.70**	55.86**	65.70**	55.86**
			-	-	(100.00)	(100.00)	(100.00)	(100.00)
Overall	87	63	659.50*	481.00*	1231.00*	942.00*	1890.50*	1423.00*
			7.57**	7.64**	14.15**	14.95**	21.72**	22.59**
			(34.88)	(33.79)	(65.12)	(66.21)	(100.00)	(100.00)

Figures in parentheses are the per cent of total sale by the respective size group of farmers; *total quantity; ** per farm quantity

Place-Wise Sale Pattern in Sikar

The farmers of the selected villages sold fenugreek in their own villages to the village traders as well as in the nearby Krishi Upaj Mandi Samiti, Srimadhopur (Sikar). The selected farmers marketed 66.21 per cent fenugreek in Sikar regulated market and remaining 33.79 per cent in their own villages. Among the size groups, marginal and small farmers sold cent per cent quantity of fenugreek in their own villages. Semi-medium and medium farmers sold 54.11 and 21.41 per cent quantity in the villages where as, the quantity sold by these categories of farmers in the mandi was 45.89 and 78.59 per cent, respectively (Table 1). As against this, cent per cent large farmers sold their produce in Sikar regulated market. The tendency of village sale increased with the decrease in the size of holdings due to lesser quantity of fenugreek available with them. The tendency of mandi sale was found to be positively associated with the increase in the farm size, i.e. mandi sale increased with the increase in the size of holdings. An overview of results revealed that the bigger farmers preferred to market their fenugreek produce in the regulated market of Sikar with the expectation of getting higher prices.

Time-Wise Sale Pattern in Jaipur

The sale pattern according to time was studied after dividing the year in to four seasons each of three months duration. The peak arrival season of fenugreek was during March to May (first quarter) after the harvest of the crop. Farmers of all sized groups sold on an average 66.11, 23.45, 8.23 and 2.21 per cent surplus in the first, second, third and fourth quarters of the year, respectively. This showed that large farmers sold low quantity in the first quarter of the year probably because of low prices prevailing in this season due to heavy arrival of the produce. Among the size groups semi-medium, medium and large sized farmers sold 63.60, 60.05 and 54.03 per cent of their total surplus in the first quarter of the year i.e. immediately after harvest to meet the cash needs for domestic necessities as well as for clearing the loan obligations. Sale in the second quarter by the semi-medium, medium and large sized farmers was 36.40, 24.52 and 26.94 per cent of total marketed surplus, respectively (Table 2). This shows that medium and semi-medium sized farmers sold their produce in this quarter heavily. Only 27 per cent farmers from large size group sold their surplus produce in this quarter. Marginal, small and semi-medium farms did not sale in the third quarter as they had no surplus for disposal. The medium and large sized farmers sold 15.43 and 12.64 per cent of their marketed surplus in this quarter. In the fourth quarter, only large-sized farmers sold the produce. This was 6.39 per cent of their total marketed surplus. The results revealed that there was tendency of sale immediately after harvest among the marginal and small farmers. The semi-medium farmers sold the total surplus in the first and second quarters of the years. The medium farmers sold their produce in first three quarters of the year. The large farmers sold their produce in all the four quarters of the year but more quantity was sold in first and second quarter of the year.

Time-Wise Sale Pattern in Sikar

The sale pattern according to time was studied after dividing the year into four seasons each of three months duration. On the overall basis, the selected farmers sold 90.44 per cent of fenugreek in the first two quarters of the year, i.e. during the month of March to August and 9.56 per cent quantity was sold by them in other two quarters of the year, i.e. during the month of September to February. The farmers of all size groups sold 69.42, 21.02, 7.44 and 2.12 per cent fenugreek in the first, second, third and fourth quarters of the year, respectively. Among the size groups, semi-medium, medium, and large farmers sold 77.06, 63.38 and 56.01 per cent fenugreek, respectively in the first quarter. The quantity marketed by them in the second quarter was 22.94, 22.70 and 25.83 per cent, respectively. Medium and large farmers sold 13.92 and 10.49 per cent quantity of fenugreek in the third quarter of the year. Only large farmers sold 7.67 per cent quantity of fenugreek in the fourth quarter (Table 2). As against this, all the marginal and small farmers sold their total fenugreek in the first quarter of the year, i.e. immediately after harvest.

Table 2: Time-Wise Pattern of Disposal of Fenugreek Seed by the Sample Farmers in Jaipur and Sikar District (Quantity in Quintals)

Size Groups	I Quarter (March to May)		II Quarter (June to Aug.)		III Quarter (Sept. to Nov.)		IV Quarter (Dec. to Feb.)	
	Jaipur	Sikar	Jaipur	Sikar	Jaipur	Sikar	Jaipur	Sikar
Marginal (< 1 ha.)	75.5*	51.00*	-	-	-	-	-	-
	5.39**	5.67**	-	-	-	-	-	-
	(100.00)	(100.00)	-	-	-	-	-	-
Small (1-2 ha.)	273.00*	113.00*	-	-	-	-	-	-
	12.40**	8.69**	-	-	-	-	-	-
	(100.00)	(100.00)	-	-	-	-	-	-

Table 2: Contd.,								
Semi-medium (2-4 ha.)	262.00*	309.00*	150.00*	92.00*	-	-	-	-
	12.48**	15.45**	7.14**	4.60**	-	-	-	-
	(63.60)	(77.06)	(36.40)	(22.94)	-	-	-	-
Medium (4-10 ha.)	284.00*	296.00*	116*	106.00*	73.00*	65.00*	-	-
	14.20**	21.14**	5.80**	7.57**	3.65**	4.64**	-	-
	(60.05)	(63.38)	(24.52)	(22.70)	(15.43)	(13.92)	-	-
Large (10 ha. & above)	355.00*	219.00*	177*	101.00*	83.00*	41.00*	42.00*	30.00*
	35.50**	31.28**	17.70**	14.43**	8.30**	5.86**	4.20**	4.29**
	(54.03)	(56.01)	(26.94)	(25.83)	(12.64)	(10.49)	(6.39)	(7.67)
Overall	1249.50*	988.00*	443.00*	299.00*	156.00*	106.00*	42.00*	30.00*
	14.36**	15.68**	5.08**	4.75**	1.80**	1.68**	0.48**	0.48**
	(66.11)	(69.42)	(23.45)	(21.02)	(8.23)	(7.44)	(2.21)	(2.12)

Figures in parentheses are the per cent of total sale by the respective size group of farmers;* total quantity; ** per farm quantity

The study revealed that of the total fenugreek available with the farmers, 69.42 per cent fenugreek was marketed only in the first quarter, i.e. during the month of March to May and remaining 30.58 per cent in other three quarters of the year. Among the size groups, marginal and small farmers marketed their total produce immediately after harvest, i.e. in the first quarter. An overview of the results revealed that the increase in farm size and quantity of fenugreek marketed in the subsequent quarters of the year had shown a positive association. Medium and large farmers continued to dispose of their fenugreek produce up to the third and fourth quarters of the year due to their better financial position as also the availability of storage facilities with them.

Agency-Wise Sale Pattern in Jaipur

Selected farmers adopted following two channels in the marketing of their fenugreek: (i) Marketing channel adopted for selling fenugreek in a village : Producer farmer-Village trader-Wholesaler-Retailer –consumer; (ii) Marketing channel adopted for selling fenugreek in the regulated market: Producer farmer – wholesaler – retailer – the consumer. 62.07 per cent farmers marketed fenugreek in the village to the village traders. Village traders purchased fenugreek from the producers at the price indicated by them as most of the farmers had no knowledge of the prevailing market prices. Out of the 87 farmers selected for the study 54 farmers (62.07 per cent) marketed fenugreek in their own village. Among the size groups cent per cent marginal and small farmers and 61.91 per cent semi-medium and 25 per cent medium farmers marketed their fenugreek in the village to the village traders. Further interrogation revealed that they preferred to market in the village due to lesser quantity of fenugreek available with them as well as due to the high unit cost incurred in a marketing of small lots of produce in the regulated market. None of the large farmers sold fenugreek in the village. Adoption of village sale by the farmers revealed declining trend with the increase in farm size. Arrivals of fenugreek in the market started from the month of March and reached a peak in the month of April and May. It was noted that 37.93 per cent selected farmers brought surplus fenugreek in Chomu mandi for sale. Among the size groups: 38.09 per cent semi-medium, 75.00 per cent medium and cent per cent large farmers brought their fenugreek in the mandi for sale (Table 3). The study results revealed that the number of farmers adopting mandi sale increased in number with increase in farm size.

Table 3: Distribution of Producer Farmers Adopting Different Marketing Channels in Marketing of Fenugreek Seed in Jaipur and Sikar District

Marketing Channels & Size Group	Village sale (Producer-Village Trader-Wholesaler-Retailer-Consumer)		Mandi sale (Producer-Wholesaler-Retailer-Consumer)		Total Sale	
	Jaipur	Sikar	Jaipur	Sikar	Jaipur	Sikar
Marginal	14 (100.00)	9 (100.00)	-	-	14 (100.00)	9 (100.00)
Small	22 (100.00)	13 (100.00)	-	-	22 (100.00)	13 (100.00)
Semi-medium	13 (61.91)	12 (60.00)	8 (38.09)	8 (40.00)	21 (100.00)	20 (100.00)
Medium	5 (25.00)	4 (28.57)	15 (75.00)	10 (71.43)	20 (100.00)	24 (100.00)
Large	-	-	10 (100.00)	7 (100.00)	10 (100.00)	7 (100.00)
Total	54 (62.07)	38 (60.32)	33 (37.93)	25 (39.68)	87 (100.00)	63 (100.00)

Figures in parentheses are the per cent of their respective column total.

Agency-Wise Sale Pattern in Sikar

Selected farmers adopted two channels for marketing of fenugreek as in Jaipur. 60.32 per cent farmers sold fenugreek in the villages to the village traders. Village traders directly established relationship with the fenugreek producer-farmers by advancing loans and other basic necessities from time to time. Village traders purchased fenugreek from the producers at the price indicated by them as most of the farmers had no knowledge of the prevailing market prices. Out of the 63 farmers selected for the study, 38 farmers (60.32 per cent) marketed fenugreek in their own villages. Of this cent per cent farmers were from marginal and small sized categories, whereas 60.00 and 28.57 per cent farmers were from semi-medium and medium categories (Table 3). None of the large farmers sold fenugreek in villages to the village traders. Adoption of village sale by the farmers recorded declining trend with the increase in farm size. Sikar mandi was the principal fenugreek market in the state of Rajasthan in respect of fenugreek. Arrivals of fenugreek in the market were on the peak in the months of March, April and May. 39.68 per cent farmers sold fenugreek in the regulated market of Sikar. Further, 40.00 per cent semi-medium, 71.43 per cent medium and cent per cent of the large farmers sold their fenugreek in the mandi. None of the farmers from marginal and small categories sold fenugreek in mandi. Farmers adopting the mandi sale were positively associated with the increase in a size of holding and the quantity of fenugreek surplus.

Marketing Charges in Jaipur

In marketing process, price-spread represents the difference between the price per unit of produce received by the producer-farmer and the price paid for it by the ultimate consumer. It consists of marketing cost incurred by the different agencies for performing the various marketing functions and the margin earned by the various intermediaries involved in the process of movements of the produce from the primary producer to the ultimate consumer. The importance of a study on price spread, marketing costs and margins lies in the fact that such knowledge helps the policy planners in taking decisions regarding the reduction in margins earned by different market intermediaries so that the overall share of the producer-farmer in the consumer's rupee may be increased.

At Village Level

Marketing costs are borne by the producer farmer and the village trader in the sale of fenugreek at the village level. Farmers transported the fenugreek produce on camel cart or tractor to the shop of village traders. The average cost of transportation of the product to the village traders shop was estimated ₹ 7.5 per quintal on the average basis. Village traders

carried their produce in Jute gunny bags. The cost of a new gunny bag was ₹ 40.00. The working life of a gunny bag was expected to last for 5 years. The carrying capacity of a gunny bag was 100 kg. The depreciation charge for a gunny bag was estimated at ₹ 8.00 and Sutli charges to ₹ 0.40 per quintal. Prevailing charges for this were ₹ 5.00 per bag of 100 kg and were borne by the village trader. Weighing charges at the rate of ₹ 1.20 per bag of 100 kg was borne by the village trader. This operation was done mostly by family labour but a prevailing rate of filling and stitching charges for 100.00 kg bag was ₹ 2.50. Village trader deducted Karda charges from the producer-farmers @ 2 kg per bag of 100 kg valued at ₹ 43.20 on an average basis. The village-trader incurred ₹ 5.00 per bag carrying 100 kg of fenugreek for its cleaning and sieving.

At Mandi Level

Cost of performing various functions in sale of fenugreek at mandi as prescribed by Krishi Upaj Mandi Samiti, Chomu (Jaipur). Transportation cost was paid by the farmer sellers on the basis of number of bags of fenugreek. This also varied with the distance between farm and mandi. The selected villages were situated about 20-22 km. away from Chomu mandi (Jaipur). Mini trucks and tractor trolleys were common means used in transportation. The average cost of transportation borne by the farmer was ₹ 20.00 per quintal at Chomu mandi. The carrying cost of fenugreek in jute gunny bags per trip from the farmer's field to mandi was estimated at ₹ 8.40 per quintal. Loading of fenugreek bags in mini truck/ tractor trolley was done by the family labour of the farmers. At mandi unloading was done at prescribed charges of ₹ 2.50 per 50 kg bag. This cost was born by the producer-seller as it was incurred prior to the sale. The cost of loading and unloading was thus ₹ 5.00 per 100 kg bag. Weighing charges @ ₹ 1.20 per bag was borne by the buyer of fenugreek. The prevailing charges for filling and stitching a bag were ₹ 2.50 per bag of 100 kg. Karda was deducted by the wholesaler from the producer-seller @ 2 kg per 100 kg of fenugreek valuing at ₹ 43.20 per quintal. VAT (value added tax) was charged from the buyer at the rate of 5 per cent of the value of the produce (fenugreek) by the commission agent for depositing the same in the government account. Mandi fee was realized by the mandi samiti @ ₹ 1.60 per ₹ 100 worth of fenugreek and was borne by the buyer. Commission agents charged commission at the rate of two per cent of the value of fenugreek from the buyers. The wholesalers incurred ₹ 5.00 per bag of 100 kg for cleaning of fenugreek.

MARKETING CHARGES IN SIKAR

At Village Sale

Following costs were incurred in the sale of fenugreek at a village level. All these costs were borne by the producer-farmers. Cleaning and sieving charges, costs of gunny bags and sutli (jute twine), filling and stitching charges, loading and unloading charges were reported same as village sale in Jaipur district. Producer-farmers transported fenugreek by camel carts or tractor trolleys for sale to the village traders shop and bear transportation cost @ ₹ 10.00 per bag of 100 kg Village traders transported the purchased quantity of fenugreek by tractor trolleys to the Krishi Upaj Mandi Samiti, (Sri Madhopur) Sikar and incurred ₹ 45.00 per bag of 100 kg as cost of transportation. Village traders charged Karda from producer-farmers @ two kg per bag of 100 kg on an average the cost of Karda was ₹ 46.20 per bag.

At Mandi Sale

All charges such as mandi fee, VAT (value added tax), commission charges, cost of gunny bags and sutli, loading and unloading charges, filling and stitching charges, weighing charges, cleaning and sieving charges were reported similar for mandi sale as reported in Jaipur district except transportation charges and karda. Transportation cost was paid by the

farmer-sellers on the basis of a number of bags of fenugreek. This also varied with the distance between farm and the mandi. The selected villages were situated about 40-50 km away from Srimadhapur mandi. Mini-trucks and tractor trolleys were common means used in the transportation of fenugreek from these villages. The average transportation cost per quintal was ₹ 50. Karda was deducted by the wholesaler from the producer-sellers @ two kg per bag of 100 kg valued at ₹ 46.20.

CHANNEL-WISE MARKETING COST IN JAIPUR

At Village Sale

The total cost incurred in the marketing of fenugreek at village level was noted to be ₹ 385.74 per quintal of fenugreek. Of this ₹ 66.60 (17.27 per cent), ₹ 47.10 (12.21 per cent), ₹ 239.94 (62.20 per cent) and ₹ 32.10 (8.32 per cent) were incurred by the producer, village trader, wholesaler and retailer, respectively (Table 4). Agency wise break-up of the marketing cost in a sale of fenugreek revealed that wholesalers incurred the major share in total marketing costs. A component wise break-up of marketing cost indicated that VAT, mandi fee, commission, cost of gunny bags, transportation cost and karda were the major cost items and these items together accounted for over 85.98 per cent of the total marketing costs.

At Mandi Sale

The selected farmers incurred ₹ 84.10 (23.62 per cent) per quintal in taking the produce to mandi. Component wise, transportation and karda were the major items of cost which together accounted for 75.15 per cent of total cost. Wholesaler incurred ₹ 239.94 per quintal (67.37 per cent) in mandi sale. Component wise, VAT, commission and mandi fee were the major cost items accounting for 87.46 per cent of the total cost. Cost of transportation, gunny bags, loading and unloading charges accounted for 10.79 per cent of the total marketing costs. Wholesaler sold fenugreek to retailers in the mandi. Retailers took the purchased fenugreek to their place of business and incurred ₹ 32.10 per quintal (9.01 per cent) of fenugreek in marketing to the consumers.

Table 4: Marketing Costs Incurred in Sale of Fenugreek Seed at Village and Mandi in Jaipur District(₹ /Qtl)

Particulars of Cost	Village Sale				Total Costs
	Producer	Village Trader	Wholesaler	Retailer	
VAT	-	-	122.00 (50.85)	-	122.00 (31.63)
Commission	-	-	48.80 (20.34)	-	48.80 (12.65)
Mandi fee	-	-	39.04 (16.27)	-	39.04 (10.12)
Cleaning and sieving	-	5.00 (10.62)	-	-	5.00 (1.30)
Filling & stitching	2.50 (3.75)	2.50 (5.31)	2.50 (1.04)	2.50 (7.79)	10.00 (2.59)
Bag and sutli charges	8.40 (12.61)	8.40 (17.83)	8.40 (3.50)	8.40 (26.17)	33.60 (8.71)
Transportation	7.50 (11.26)	20.00 (42.46)	7.50 (3.13)	10.00 (31.15)	45.00 (11.67)
Weighing	-	1.20 (2.55)	1.20 (0.50)	1.20 (3.74)	3.60 (0.93)
Collection for association	-	-	0.50 (0.21)	-	0.50 (0.13)
Karda	43.20 (64.86)	-	-	-	43.20 (11.20)
Loading	5.00 (7.51)	5.00 (10.62)	5.00 (2.08)	5.00 (15.58)	20.00 (5.18)
Unloading	-	5.00 (10.62)	5.00 (2.08)	5.00 (15.58)	15.00 (3.89)
Total	66.60 (100.00) [17.27]	47.10 (100.00) [12.21]	239.94 (100.00) [62.20]	32.10 (100.00) [8.32]	385.74 (100.00) [100.00]
Particulars of Cost	Mandi Sale				Total Costs
	Producer	Village Trader	Wholesaler	Retailer	
VAT	-	-	122.00 (50.85)	-	122.00 (34.26)
Commission	-	-	48.80 (20.34)	-	48.80 (13.70)
Mandi fee	-	-	39.04 (16.27)	-	39.04 (10.96)
Cleaning & sieving	5.00 (5.95)	-	-	-	5.00 (1.40)
Filling & stitching	2.50 (2.97)	-	2.50 (1.04)	2.50 (7.79)	7.50 (2.11)
Bag & sutli charges	8.40 (9.99)	-	8.40 (3.50)	8.40 (26.17)	25.20 (7.08)
Transportation	20.00 (23.78)	-	7.50 (3.13)	10.00 (31.15)	37.50 (10.53)
Weighing	-	-	1.20 (0.50)	1.20 (3.74)	2.40 (0.67)
Collection for association	-	-	0.50 (0.21)	-	0.50 (0.14)
Karda	43.20 (51.37)	-	-	-	43.20 (12.13)
Loading	5.00 (5.95)	-	5.00 (2.08)	5.00 (15.58)	15.00 (4.21)
Unloading	-	-	5.00 (2.08)	5.00 (15.58)	10.00 (2.81)
Total	84.10 (100.00) [23.62]	-	239.94 (100.00) [67.37]	32.10 (100.00) [9.01]	356.14 (100.00) [100.00]

Figures in parentheses are the per cent of total marketing cost incurred by the respective middleman. Figures in square brackets are the per cent of total marketing cost incurred in each channel.

Producer, wholesaler and retailers together incurred a cost of ₹ 356.14 per quintal in a sale of fenugreek. The share of producer, wholesaler and retailer in total cost of marketing was of the order of 23.62, 67.37, and 9.01 per cent, respectively. Comparison of a cost incurred in the marketing of fenugreek at village and mandi revealed that marketing costs were higher in village sale by ₹ 29.60 per quintal than that in mandi sale (Table 4).

CHANNEL-WISE MARKETING COST IN SIKAR

At Village Sale

Total costs incurred in the marketing of fenugreek at village level were ₹ 421.86 per quintal. Of this, ₹ 72.10 (17.09 per cent), ₹ 72.10 (17.09 per cent), ₹ 235.56 (55.84 per cent) and ₹ 42.10 (9.98 per cent) were incurred by the producer-farmers, village traders, wholesalers and retailers, respectively. Agency-wise break-up of the marketing costs in a sale of fenugreek revealed that wholesalers incurred the major share in total marketing costs. A component-wise break-up of marketing costs indicated that VAT, mandi fees, commission, karda and transportation cost were the major items of costs as these together accounted for 79.21 per cent of the total marketing costs. Out of these items, VAT alone accounted for 27.97 per cent of the total marketing costs (Table 5).

Table 5: Marketing Costs Incurred in Sale of Fenugreek Seed at Village and Mandi in Sikar District (₹ /Qt)

Particulars of Cost	Village Sale				Total Costs
	Producer	Village Trader	Wholesaler	Retailer	
VAT	-	-	118.00 (50.09)	-	118.00 (27.97)
Commission	-	-	47.20 (20.04)	-	47.20 (11.19)
Mandi fees	-	-	37.76 (16.03)	-	37.76 (8.95)
Cleaning & sieving	-	5.00 (6.93)	-	-	5.00 (1.19)
Filling & stitching	2.50 (3.47)	2.50 (3.47)	2.50 (1.06)	2.50 (5.94)	10.00 (2.37)
Bag & sutli charges	8.40 (11.65)	8.40 (11.65)	8.40 (3.57)	8.40 (19.95)	33.60 (7.96)
Transportation	10.00 (13.87)	45.00 (62.41)	10.00 (4.25)	20.00 (47.51)	85.00 (20.15)
Weighing	-	1.20 (1.66)	1.20 (0.51)	1.20 (2.85)	3.60 (0.85)
Collection for association	-	-	0.50 (0.21)	-	0.50 (0.12)
Karda	46.20 (64.08)	-	-	-	46.20 (10.95)
Loading	5.00 (6.93)	5.00 (6.93)	5.00 (2.12)	5.00 (11.88)	20.00 (4.74)
Unloading	-	5.00 (6.93)	5.00 (2.12)	5.00 (11.88)	15.00 (3.56)
Total	72.10 (100.00) [17.09]	72.10 (100.00) [17.09]	235.56 (100.00) [55.84]	42.10 (100.00) [9.98]	421.86 (100.00) [100.00]
Mandi sale					
VAT	-	-	118.00 (50.09)	-	118.00 (29.89)
Commission	-	-	47.20 (20.04)	-	47.20 (11.96)
Mandi fees	-	-	37.76 (16.03)	-	37.76 (9.57)
Cleaning & sieving	5.00 (4.27)	-	-	-	5.00 (1.27)
Filling & stitching	2.50 (2.13)	-	2.50 (1.06)	2.50 (5.94)	7.50 (1.90)
Bag & sutli charges	8.40 (7.17)	-	8.40 (3.57)	8.40 (19.95)	25.20 (6.38)
Transportation	50.00 (42.70)	-	10.00 (4.25)	20.00 (47.51)	80.00 (20.27)
Weighing	-	-	1.20 (0.51)	1.20 (2.85)	2.40 (0.61)
Collection for association	-	-	0.50 (0.21)	-	0.50 (0.13)
Karda	46.20 (39.45)	-	-	-	46.20 (11.70)
Loading	5.00 (4.27)	-	5.00 (2.12)	5.00 (11.88)	15.00 (3.80)
Unloading	-	-	5.00 (2.12)	5.00 (11.88)	10.00 (2.53)
Total	117.10 (100.00) [29.66]	-	235.00 (100.00) [59.69]	42.10 (100.00) [10.66]	394.76 (100.00) [100.00]

Figures in parentheses are the per cent of total marketing cost incurred by the respective middleman. Figures in square brackets are the per cent of total marketing cost incurred in each channel.

At Mandi Sale

The selected farmers incurred a cost of ₹ 117.10 per quintal in taking produce to mandi. Wholesalers incurred ₹ 235.00 per quintal (59.69 per cent of the total marketing costs). Component-wise, VAT, commission, mandi fees, karda and transportation cost were the major cost items which together accounted for 83.39 per cent of the total marketing cost. Wholesalers sold fenugreek to the retailers in the mandi. Retailers took the purchased fenugreek to their place of business and incurred ₹ 42.10 per quintal (10.66 per cent) in sale of fenugreek to the consumers. Producers, wholesalers and retailers together incurred a cost of ₹ 394.76 per quintal in sale of fenugreek. Further the share of producers, wholesalers and retailers in total cost of marketing was 29.66, 59.69 and 10.66 per cent, respectively (Table 5).

MARKETING MARGINS AND PRICE SPREAD IN JAIPUR

At Village Sale

Producer got a net price of ₹ 2050 per quintal or 58.57 per cent of the price paid by the consumer in sale of fenugreek at village. Marketing cost incurred by the middlemen was ₹ 385.74 or 11.02 per cent of the consumer's price. Intermediaries earned a total margin of ₹ 1064.26 or 30.41 per cent of the price paid by the consumer in sale of fenugreek. Agency-wise break-up of the gross margin revealed that the village trader, wholesaler and retailer got 6.30, 9.23 and 14.88 per cent of the consumer price, respectively (Table 6). Further, the share of retailer in the total margin has been much higher (48.94 per cent) due to the demand of fenugreek in small quantity by the consumers.

Table 6: Price-Spread in Marketing of Fenugreek Seeds at Village and Mandi Sale in Jaipur District

Particulars	Village Sale – Jaipur		Village Sale - Sikar		Mandi Sale - Jaipur		Mandi Sale - Sikar	
	₹ Quintal	Share in Consumer's (per cent)	₹ Quintal	Share in Consumer's (per cent)	₹ Quintal	Share in Consumer's (per cent)	₹ Quintal	Share in Consumer's (per cent)
Producer's net price	2050.00	58.57	2000	58.82	2300.00	65.71	2250	66.18
Cost incurred by								
Producer	66.60	1.90	72.10	2.12	84.10	2.40	117.10	3.44
Village trader	47.10	1.35	72.10	2.12	-	-	-	-
Wholesaler	239.94	6.86	235.56	6.93	239.94	6.86	235.56	6.93
Retailer	32.10	0.92	42.10	1.24	32.10	0.92	42.10	1.24
Total cost	385.74	11.02	421.86	12.41	356.14	10.18	394.76	11.61
Margin earned by								
Village trader	220.40	6.30	219.60	6.46	-	-	-	-
Wholesaler	323.00	9.23	281	8.26	323.00	9.23	281	8.26
Retailer	520.86	14.88	477.54	14.05	520.86	14.88	474.24	13.95
Total margin	1064.26	30.41	978.14	28.77	843.86	21.25	755.24	22.21
Consumer's price	3500.00	100.00	3400	100.00	3500.00	100.00	3400	100.00

At Mandi Sale

In a sale of fenugreek in Chomu (Jaipur) Mandi, producer-farmers got a net price of ₹ 2300 per quintal or 65.71 per cent of the price paid by the consumers. Marketing cost incurred by different middlemen was ₹ 356.14 or 10.18 per cent of consumer's price. Middleman in sale of fenugreek earned a margin of ₹ 843.86 or 21.25 per cent of the price paid by the consumers. Among the various middlemen, retailer's margin was ₹ 520.86 (14.88 per cent) which was higher by 5.65 per cent than the wholesaler's margin (Table 6). Farmers got 7.14 per cent higher share in the sale of fenugreek in the mandi than in the village. Margins earned by the middlemen were observed to be higher than by 6.30 per cent in a sale of fenugreek in the village sale than the regulated market. From the above discussion, it may be concluded that the net price

received by the producer farmer in village sale was lower than that of the mandi sale by the farmer.

MARKETING MARGINS AND PRICE SPREAD IN SIKAR

At Village

In the sale of fenugreek in Srimadhopur (Sikar) Mandi, producer-farmers got a net price of ₹ 2000.00 per quintal or 58.82 per cent of the price paid by the consumer in the sale of fenugreek at village. Total marketing costs incurred by the middlemen including that of the producer was ₹ 421.86 per quintal or 12.41 per cent of the consumer's price. Intermediaries earned a total margin of ₹ 978.14 per quintal or 28.77 per cent of the price paid by the consumers in a sale of fenugreek. Agency-wise break-up of the gross margin revealed that the village traders, wholesalers and retailers got 6.46, 8.26 and 14.05 per cent of the consumer's price, respectively (Table 6). Further, the share of retailers in the total margin has been higher (48.82 per cent) due to the demand of fenugreek in small quantity by the consumers.

At Mandi

In the sale of fenugreek in Srimadhopur (Sikar) Mandi, producer-farmers got a net price of ₹ 2250.00 per quintal or 66.18 per cent of the price paid by the consumers. Total marketing costs incurred by different middlemen including the producer was ₹ 394.76 per quintal or 11.61 per cent of the consumer's price. Middlemen in the sale of fenugreek earned a total margin of ₹ 755.24 per quintal or 22.21 per cent of the price paid by the consumers. Among the various middlemen, retailer's margin was ₹ 474.24 i.e. 13.95 per cent of the consumer's price (Table 6). Retailer's margin was higher by 5.69 per cent than the wholesaler's margin. Margin earned by the middlemen has been higher by 6.56 per cent in a sale of fenugreek in the village sale than the regulated market.

CONCLUSIONS

In both of districts, the number of farmers and quantity of fenugreek sold by them in the regulated market was positively associated with the increase in the size of holding. Cent per cent farmers from marginal and small categories sold their cent per cent quantity of fenugreek crop in a village to village trader. Whereas, cent per cent largely sized farmers sold their whole quantity in the regulated market. Out of the total fenugreek crop available with the farmers, 66.11 per cent quantity was marketed only in the first quarter i.e. during the month of March to May and rest 33.89 per cent quantity was marketed in the remaining three quarters of the year in Jaipur and 69.42 per cent quantity was marketed in first quarter and remaining 30.58 per cent quantity was marketed in the remaining three quarters in Sikar district.

Total cost in a sale of fenugreek crop has been ₹ 385.74 and ₹ 356.14 per quintal, respectively at village and Mandi in Jaipur district and ₹ 422.76 and ₹ 392.36 per quintal in Sikar district. Marketing costs were higher by ₹ 29.60 per quintal in a sale at the village as compared to that in Mandi in Jaipur and ₹ 30.40 per quintal in Sikar district, because of involvement of more number of middlemen. Agency-wise breakup of the total marketing costs in the sale of fenugreek crop revealed that wholesalers incurred the major share in total marketing costs which accounted 62.20 per cent and 67.37 per cent, respectively in village sale and mandi sale in Jaipur district and these ratios were 55.79 per cent and 60.11 per cent in Sikar district.

The component-wise breakup of the total marketing costs through marketing channel indicated that VAT, commission, mandi fee, transportation, and karda were the major cost items as these together accounted for 77.27 per cent and 81.58 per cent at village level and mandi level of the total marketing cost in Jaipur district and these ratios were 79.04

per cent and 83.12 per cent in Sikar district. Producer's share in the consumer's rupee has been 58.57 per cent in village sale and 65.71 per cent in mandi sale in Jaipur district and these ratios were 58.82 per cent and 66.18 per cent in Sikar district. Farmers selling fenugreek crop in mandi got 7.14 per cent higher share than the village sale in Jaipur and 7.36 per cent in Sikar district. Total marketing margin earned by the middlemen in a sale of fenugreek crop accounted about one-third of the consumer's price (30.41 per cent) in channel-I and one fourth (24.11 per cent) in channel-II in Jaipur and 28.74 per cent at village sale and 22.28 per cent at mandi level in Sikar district. Margin earned by the middlemen has been higher by 6.30 per cent in the sale of fenugreek in the village sale than the mandi in Jaipur and 6.56 per cent higher in village sale than mandi in Sikar district.

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